

BASIS FOR THE AMENDMENT

New Claims 24-27 are supported by the specification as originally filed, for example at page 12, last paragraph, at page 13, lines 24-28 and at page 15, lines 26-32.

No new matter is believed to have been added by entry of this amendment. Entry and favorable reconsideration are respectfully requested.

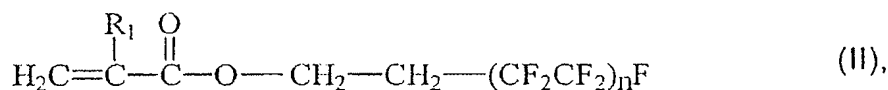
Upon entry of this amendment Claims 1-20 and 22-27 will now be active in this application.

REMARKS

Applicants respectfully request reconsideration of the application, as amended, in view of the following remarks.

The present invention as set forth in **Claim 1** relates to a coating composition for producing formable scratchproof coatings with dirt repellency effect, comprising:

- A) from 1 to 30% by weight of a prepolymer obtainable by free-radically polymerizing a mixture comprising
 - A1) from 1 to 10 parts by weight of at least one sulphur compound containing at least 3 thiol groups, and
 - A2) from 90 to 99 parts by weight of alkyl (meth)acrylates,
- B) from 0.2 to 10% by weight of fluoroalkyl (meth)acrylate according to the formula (II)**



wherein the radical R₁ is a hydrogen atom or a methyl radical and n is an integer in the range from 2 to 10

- C) from 20 to 80% by weight of polyfunctional (meth)acrylates,
- D) from 0.01 to 10% by weight of at least one initiator,
- E) from 2 to 75% by weight of at least one diluent, and**
- F) from 0 to 40% by weight of customary additives.

Applicants wish to thank Examiner Harlan for the helpful and courteous discussion with Applicants' Representative on January 11, 2008. During this discussion it was noted

that the German equivalent of Brehm et al (US 5,700,576) is discussed at page 1, starting at line 20 of the specification.

Notably, this reference does not disclose the use of component B) as claimed in the present case (0.2 to 10% of fluoroalkyl (meth)acrylate) in combination with the other components (C) - F).

The Examiner points out that in Table 1 of Brehm et al, TPMA (2,2,3,3-tetrafluoropropyl methacrylate) is used. This compound is used here as a thinner. See also col. 5, lines 57-58 and Table 2 of the reference.

However, in the present invention component B) **and** a thinner (diluent) are required. This is not disclosed or suggested by Brehm et al.

Further, the compound of formula (II) is different from TPMA because the compound of formula (II) have two methylene groups directly bound to the alcohol oxygen atom, i.e. – O-CH₂-CH₂-(CF₂CF₂)_nF. TPMA has only one methylene group.

The Examiner has agreed that formula (II) of the present invention is different from TPMA.

Further, using a compound of formula (II) results in superior properties of a coated sheet. Example 1 of the specification shows that a coating composition was prepared containing pentaerythrityl tetraacrylate, 1,6-hexanediol diacrylate, 2-hydroxyethyl methacrylate, PLEX 8770 (prepolymer obtainable from Rohm GmbH & Co. KG, copolymer of methyl methacrylate, butyl methacrylate and pentaerythrityl tetrathioglycolate), Irgacure 184, Zonyl TA-N (fluoroacrylate with two methylene groups) available from DuPont and Tinuvin 1130, available from Ciba AG.

The coating composition obtained in this way is applied to Makrolon (available from Bayer AG) sheets and cured.

The coated sheet is formed by the bending method of DIN 8580/9/over a template at a temperature of 150°C.

Surprisingly it is found that the scratch resistance is improved by the forming operation. The elongation at break is 5.9%. It was also found that paints can be removed effectively from the coating. The paints used were yellow Prisma Color Acryl and blue Prisma Color Acryl from SchullerEh'klar GmbH, Austria and also red Pinture Paint Spray, Montana Colors, S.L. Berlin.

In Comparative Example 1, the component B) having two methylene groups was not used. As a result of the forming operation, carried out in accordance with Example 1, fine cracks appeared in the coating. The maximum elongation at break (cracking in the coat) is below 2%.

Further, it is not obvious to use compounds with two methylene group instead of one. Notably, compounds having one methylene group such as TMPA present a health risk and are therefore no longer commercially available. Using two methylene groups does not give rise to the same health risk. This is not disclosed or suggested in Brehm et al. In fact, a person of ordinary skill in the art would think that compounds with two methylene groups may present the same health risk. Accordingly, there is no expectation of success in using compounds having two methylene groups instead of one.

Further, the Examiner stated that he may consider the claims more favorably if we amend Claim 1 so that component E) comprises at least one monofunctional reactive diluent. Accordingly, **new Claims 24-27** have been added. A combination of components B) and E) as claimed in Claim 24-27 is not disclosed or suggested in Brehm et al.

Therefore, the rejection of Claims 1-20 and 22-23 under 35 U.S.C. § 103(a) over Brehm et al is believed to be unsustainable as the present invention is neither anticipated nor obvious and withdrawal of this rejection is respectfully requested.

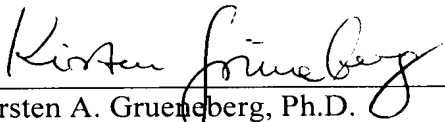
This application presents allowable subject matter, and the Examiner is kindly requested to pass it to issue. Should the Examiner have any questions regarding the claims or otherwise wish to discuss this case, he is kindly invited to contact Applicants' below-signed representative, who would be happy to provide any assistance deemed necessary in speeding this application to allowance.

Respectfully submitted,

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